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 Glu Thr Leu Asn Phe Phe Leu Thr Asp Leu Arg Ala Ser Pro Glu Tyr  
 35 40 45  
 Leu Thr Leu Leu Val Arg Asn Cys Gln Arg Leu Lys Thr Leu Lys Ile  
 50 55 60  
 Ser Glu Cys Phe Met Pro Asp Leu Val Ser Leu Phe Arg Thr Ala Gln  
 65 70 75 80  
 Thr Leu Gln Glu Phe Ala Gly Gly Ser Phe Glu Glu Gln Gly Gln Pro  
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 Val Ala Ser Arg Asn Tyr Glu Asn Tyr Tyr Phe Pro Pro Ser Leu His  
 100 105 110  
 Arg Leu Ser Leu Leu Tyr Met Gly Thr Asn Asp Met Gln Ile Leu Xaa  
 115 120 125  
 Pro Tyr Ala Thr Ala Leu Lys Lys Leu Asp Leu Gln Phe Thr Phe Leu  
 130 135 140  
 Ser Thr Glu Asp His Xaa Gln Ile Val Gln Arg Cys Ser Asn Leu Glu  
 145 150 155 160  
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 Arg Gly Asp Asp Asp Pro Gly Leu Gln Glu Glu Gln Gly Gly Val Ser  
 35 40 45  
 Gln Val Gly Leu Thr Thr Val Ala Val Gly Cys Arg Glu<sup>o</sup> Leu Glu Tyr  
 50 55 60  
 Ile Ala Ala Tyr Val Ser Asp Ile Thr Asn Gly Ala Leu Glu Ser Ile  
 65 70 75 80

Gly Thr Phe Cys Lys Asn Leu Cys Asp Phe Arg Leu Val Leu Leu Asp  
                             85                            90                            95  
 Arg Glu Glu Arg Ile Thr Asp Leu Pro Leu Asp Asn Gly Val Arg Ala  
                             100                            105                            110  
 Leu Leu Xaa Gly Cys Thr Lys Leu Arg Arg Phe Ala Leu Tyr Leu Arg  
                             115                            120                            125  
 Pro Gly Gly Leu Ser Asp Thr Gly Leu Gly Tyr Ile Gly Gln Tyr Ser  
                             130                            135                            140  
 Gly Ile Ile Gln Tyr Met Leu Leu Gly Asn Val Gly Glu Thr Asp Asp  
                             145                            150                            155                            160  
 Gly Leu Ile Arg Phe Ala Leu Gly Cys Glu Asn Leu Arg Lys Leu Glu  
                             165                            170                            175  
 Leu Arg Ser Cys Cys Phe Ser Glu Gln Ala Leu Ala Arg Ala Ile Arg  
                             180                            185                            190  
 Ser Met Pro Ser Leu Arg Tyr Val Trp Val Gln Gly Tyr Lys Ala Ser  
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 Lys Thr Gly His Asp Leu Met Leu Met Ala Arg Pro Phe Trp Asn Ile  
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 ccgcaagcac gtcaccatcg cgctctgcta caccaccacc ccggctcgcc tccgccgccg 180  
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 gatacccgag gattggggcg gacacgtcac tccctgggtc aaagagattt ctcaagtact 300  
 tcgattgcct caagagcctc cacttccgcc gcatgattgt caagggattc cgatcttcag 360  
 aatctcgctc gtgaccgcgg tcacgtgctt cagcgtctca aagcttgaca agtgctccgg 420  
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                   20                                  25                                  30

Ser Leu Thr Arg Lys His Val Thr Ile Ala Leu Cys Tyr Thr Thr Thr  
                   35                                  40                                  45

Pro Ala Arg Leu Arg Arg Arg Phe Pro His Leu Glu Ser Leu Lys Leu  
                   50                                  55                                  60

Lys Gly Lys Pro Arg Ala Ala Met Phe Asn Leu Ile Pro Glu Asp Trp  
                   65                                  70                                  75                                  80

Gly Gly His Val Thr Pro Trp Val Lys Glu Ile Ser Gln Val Leu Arg  
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Xaa Leu Lys Ser Leu His Phe Arg Arg Met Ile Val  
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 ggaaggcaga ttgtcctagt cagtattccc tccatcgtag tgggagctaa aagaccacca 660  
 ccagtttact gacancatgt tgatgcagna accacatcgg anaggaattc actacagtgc 720  
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           35                                  40                                  45  
 Val His Ile Thr Glu Leu Pro Leu Asp Asn Gly Val Arg Ala Leu Leu  
           50                                  55                                  60  
 Arg Gly Cys Thr Lys Leu Arg Arg Phe Ala Phe Tyr Val Arg Pro Gly  
           65                                  70                                  75                                  80  
 Ala Leu Ser Asp Leu Ala Phe Leu Xaa Leu Gly Glu Phe Ser Lys Thr  
                                   85                                  90                                  95  
 Val Arg Tyr Met Leu Leu Gly Asn Ala Gly Gly Ser Asp Asp Gly Leu  
                                   100                                  105                                  110  
 Leu Ala Phe Ala Arg Xaa Cys Pro Ser Leu Gln Lys Leu Glu Leu Arg  
           115                                  120                                  125  
 Ser Cys Cys Phe Ser Glu Arg Ala Leu Ala Val Ala Ala Leu Gln Leu  
           130                                  135                                  140  
 Lys Ser Leu Arg Tyr Leu Trp Val Gln Gly Tyr Lys Ala Ser Pro Thr  
           145                                  150                                  155                                  160  
 Gly Thr Asp Leu Met Ala Met Val Arg Pro Phe Trp Asn Ile Glu Phe  
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 Ala Thr Ala Thr Lys Pro Pro Met Leu Pro Lys Glu Phe Glu Asp Pro  
 35 40 45  
 Ala Phe Ser Thr Val Thr Ile Gln Arg Asp Leu Tyr Tyr Gly Tyr Asp  
 50 55 60  
 Thr Leu Met Glu Asn Val Ser Asp Pro Ser His Ile Glu Phe Ala His  
 65 70 75 80  
 His Lys Val Thr Gly Ser Lys Arg Ser Xaa Gln Ala Phe Cys Gln Phe  
 85 90 95  
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 20 25 30  
 Leu Gly Arg Glu Ile Val Leu Trp Tyr Asp Lys Ser Ile Ser Gln Trp  
 35 40 45  
 Val Ala Phe Asp Asp Lys Cys Pro His Arg Leu Ala Pro Leu Ser Glu  
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 ggacctcttc tatgggtatg acacgttgat ggagaacgtc tctgatccct cgcatataga 180  
 atttgctcac cacaagggtca ctggacnaag agatanagcc aagcctttgc catttaaaat 240  
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 gattntggga gatcacaaat gggtcntatg gatttgctcc ttcnanattc caaaggccca 420  
 aggaaaatcg ttctattgtc cgtantgctc naaacttttc antttaaatn ccacnaagga 480  
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 Lys Ala Thr Lys Pro Pro Met Leu Pro Lys Glu Phe Asp Asp Pro Ala  
                   20                  25                  30  
 Phe Ser Thr Val Thr Ile Gln Arg Asp Leu Phe Tyr Gly Tyr Asp Thr  
           35                  40                  45  
 Leu Met Glu Asn Val Ser Asp Pro Ser His Ile Glu Phe Ala His His  
           50                  55                  60  
 Lys Val Thr Gly Xaa Arg Asp Xaa Ala Lys Pro Leu Pro Phe Lys Met  
           65                  70                  75                  80  
 Glu Ser Xaa Gly Xaa Trp Gly Tyr Ser Xaa Ala Asn Thr Gly Asn Pro  
                   85                  90                  95  
 Arg Xaa Thr Ala Thr Phe Xaa Ala Pro  
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 ttcttggaag aatgtntaat tgccgatgaa gggagcgaat ggctccatga actcgccgtc 180  
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 Ser Cys Arg Ser Leu Arg Thr Leu Phe Leu Glu Glu Cys Xaa Ile Ala  
 35 40 45  
 Asp Glu Gly Ser Glu Trp Leu His Glu Leu Ala Val Asn Asn Ser Val  
 50 55 60  
 Leu Val Thr Leu Asn Phe Tyr Met Thr Glu Leu Lys Val Glu Pro Ala  
 65 70 75 80  
 Asp Leu Glu Leu Leu Ala Arg Asn Cys Lys Ser Leu Ile Ser Leu Lys  
 85 90 95  
 Met Ser Asp Cys Asp Leu Ser Asp Leu Met Val Phe Ser Lys Xaa Ser  
 100 105 110  
 Lys Ala Leu Gln Glu Phe Ala Gly Gly Ala Phe Phe Glu Ile Gly Glu  
 115 120 125  
 Tyr Thr Lys Tyr Glu Lys Val Lys Leu Pro Pro Lys Leu Cys Phe Leu  
 130 135 140  
 Gly Gly Leu Thr Phe Met Gly Lys Asn Glu Met Pro Val Asn Leu Ser  
 145 150 155 160  
 Val Phe Cys Val Arg Leu Arg Asn Trp Thr Cys Ser Thr Leu Ser Leu  
 165 170 175

Thr Thr Glu Asp His Cys Gln Leu Asn Arg  
180 185

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<213> Zea mays

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Ser Asn Ser Val Leu Glu Thr Leu Asn Phe Phe Leu Thr Asp Leu Arg  
35 40 45  
Ala Ser Pro Glu Tyr Leu Thr Leu Leu Val Arg Asn Cys Gln Arg Leu  
50 55 60  
Lys Thr Leu Lys Ile Ser Glu Cys Phe Met Pro Asp Leu Val Ser Leu  
65 70 75 80

Phe Arg Thr Ala Gln Thr Leu Gln Glu Phe Ala Gly Gly Ser Phe Glu  
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Glu Gln Gly Gln Pro Val Ala Ser Arg Asn Tyr Glu Asn Tyr Tyr Phe  
                                     100                                    105                                    110

Pro Pro Ser Leu His Arg Leu Ser Leu Leu Tyr Met Gly Thr Asn Asp  
                                     115                                    120                                    125

Met Gln Ile Leu Phe Pro Tyr Ala Thr Ala Leu Lys Lys Leu Asp Leu  
                                     130                                    135                                    140

Gln Phe Thr Phe Leu Ser Thr Glu Asp His Cys Gln Ile Val Gln Arg  
                                     145                                    150                                    155                                    160

Cys Ser Asn Leu Glu Thr Leu Glu Val Arg Asp Val Ile Gly Asp Arg  
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Gly Leu Gln Val Val Ala Gln Thr Cys Lys Lys Leu His Arg Leu Arg  
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Val Glu Arg Gly Asp Asp Asp Gln Gly Gly Leu Glu Asp Glu Gln Gly  
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Arg Ile Ser Gln Val Gly Leu Met Ala Ile Ala Gln Gly Cys Pro Glu  
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Leu Thr Tyr Trp Ala Ile His Val Ser Asp Ile Thr Asn Ala Ala Leu  
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Glu Ala Val Gly Thr Cys Ser Lys Asn Leu Asn Asp Phe Arg Leu Val  
                                     245                                    250                                    255

Leu Leu Asp Arg Glu Ala His Ile Thr Glu Leu Pro Leu Asp Asn Gly  
                                     260                                    265                                    270

Val Arg Ala Leu Leu Arg Gly Cys Thr Lys Leu Arg Arg Phe Ala Phe  
                                     275                                    280                                    285

Tyr Val Arg Pro Gly Ala Leu Ser Asp Val Gly Leu Gly Tyr Val Gly  
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Glu Phe Ser Lys Ser Ile Arg Tyr Met Leu Leu Gly Asn Val Gly Glu  
                                     305                                    310                                    315                                    320

Ser Asp Asn Gly Ile Ile Gln Leu Ser Lys Gly Cys Pro Ser Leu Gln  
                                     325                                    330                                    335

Lys Leu Glu Val Arg Gly Cys Leu Phe Ser Glu His Ala Leu Ala Leu  
                                     340                                    345                                    350

Ala Ala Leu Gln Leu Lys Ser Leu Arg Tyr Leu Trp Val Gln Gly Phe  
                                     355                                    360                                    365

Arg Ser Ser Pro Thr Gly Thr Asp Ile Met Ala Met Val Arg Pro Phe  
                                     370                                    375                                    380

Trp Asn Ile Glu Tyr Ile Val Pro Asp Gln Asp Glu Pro Cys Pro Glu  
                                     385                                    390                                    395                                    400

His Lys Arg Gln Ile Leu Ala Tyr Tyr Ser Leu Ala Gly Arg Arg Thr  
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Asp Cys Pro Pro Ser Val Thr Leu Leu Tyr Pro Ala Phe  
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 <212> DNA  
 <213> *Oryza sativa*

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 <212> PRT  
 <213> *Oryza sativa*

<400> 20  
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 20 25 30  
 Gly Tyr Val Asp Asp Pro Arg Asp Arg Glu Ala Val Ser Leu Val Cys  
 35 40 45  
 Arg Arg Trp His Arg Ile Asp Ala Leu Thr Arg Lys His Val Thr Val  
 50 55 60  
 Pro Phe Cys Tyr Ala Ala Ser Pro Ala His Leu Leu Ala Arg Phe Pro  
 65 70 75 80  
 Arg Leu Glu Ser Leu Ala Val Lys Gly Lys Pro Arg Ala Ala Met Tyr  
 85 90 95  
 Gly Leu Ile Pro Glu Asp Trp Gly Ala Tyr Ala Arg Pro Trp Val Ala  
 100 105 110  
 Glu Leu Ala Ala Pro Leu Glu Cys Leu Lys Ala Leu His Leu Arg Arg  
 115 120 125  
 Met Val Val Thr Asp Asp Asp Leu Ala Ala Leu Val Arg Ala Arg Gly  
 130 135 140  
 His Met Leu Gln Glu Leu Lys Leu Asp Lys Cys Ser Gly Phe Ser Thr  
 145 150 155 160  
 Asp Ala Leu Arg Leu Val Ala Arg Ser Cys Arg Ser Leu Arg Thr Leu  
 165 170 175  
 Phe Leu Glu Glu Cys Ser Ile Ala Asp Asn Gly Thr Glu Trp Leu His  
 180 185 190  
 Asp Leu Ala Val Asn Asn Pro Val Leu Glu Thr Leu Asn Phe His Met  
 195 200 205  
 Thr Glu Leu Thr Val Val Pro Ala Asp Leu Glu Leu Leu Ala Lys Lys  
 210 215 220  
 Cys Lys Ser Leu Ile Ser Leu Lys Ile Ser Asp Cys Asp Phe Ser Asp  
 225 230 235 240  
 Leu Ile Gly Phe Phe Arg Met Ala Ala Ser Leu Gln Glu Phe Ala Gly  
 245 250 255  
 Gly Ala Phe Ile Glu Gln Gly Glu Leu Thr Lys Tyr Gly Asn Val Lys  
 260 265 270  
 Phe Pro Ser Arg Leu Cys Ser Leu Gly Leu Thr Tyr Met Gly Thr Asn  
 275 280 285  
 Glu Met Pro Ile Ile Phe Pro Phe Ser Ala Leu Leu Lys Lys Leu Asp  
 290 295 300  
 Leu Gln Tyr Thr Phe Leu Thr Thr Glu Asp His Cys Gln Leu Ile Ala  
 305 310 315 320  
 Lys Cys Pro Asn Leu Leu Val Leu Ala Val Arg Asn Val Ile Gly Asp  
 325 330 335

Arg Gly Leu Gly Val Val Ala Asp Thr Cys Lys Lys Leu Gln Arg Leu  
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 Arg Val Glu Arg Gly Asp Asp Asp Pro Gly Leu Gln Glu Glu Gln Gly  
 355 360 365  
 Gly Val Ser Gln Val Gly Leu Thr Thr Val Ala Val Gly Cys Arg Glu  
 370 375 380  
 Leu Glu Tyr Ile Ala Ala Tyr Val Ser Asp Ile Thr Asn Gly Ala Leu  
 385 390 395 400  
 Glu Ser Ile Gly Thr Phe Cys Lys Asn Leu Cys Asp Phe Arg Leu Val  
 405 410 415  
 Leu Leu Asp Arg Glu Glu Arg Ile Thr Asp Leu Pro Leu Asp Asn Gly  
 420 425 430  
 Val Arg Ala Leu Leu Arg Gly Cys Thr Lys Leu Arg Arg Phe Ala Leu  
 435 440 445  
 Tyr Leu Arg Pro Gly Gly Leu Ser Asp Thr Gly Leu Gly Tyr Ile Gly  
 450 455 460  
 Gln Tyr Ser Gly Ile Ile Gln Tyr Met Leu Leu Gly Asn Val Gly Glu  
 465 470 475 480  
 Thr Asp Asp Gly Leu Ile Arg Phe Ala Leu Gly Cys Glu Asn Leu Arg  
 485 490 495  
 Lys Leu Glu Leu Arg Ser Cys Cys Phe Ser Glu Gln Ala Leu Ala Arg  
 500 505 510  
 Ala Ile Arg Ser Met Pro Ser Leu Arg Tyr Val Trp Val Gln Gly Tyr  
 515 520 525  
 Lys Ala Ser Lys Thr Gly His Asp Leu Met Leu Met Ala Arg Pro Phe  
 530 535 540  
 Trp Asn Ile Glu Phe Thr Pro Pro Ser Ser Glu Asn Ala Asn Arg Met  
 545 550 555 560  
 Arg Glu Asp Gly Glu Pro Cys Val Asp Ser Gln Ala Gln Ile Leu Ala  
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 Pro Leu Tyr Pro Ala  
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 <211> 2288  
 <212> DNA  
 <213> Glycine max

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 gacgtgttac atcagttacat cacatcacat cacgtaaata taggtaataa gctcggaaaa 180

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 <211> 606  
 <212> PRT  
 <213> Glycine max

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 Leu Asp Cys Val Ile Pro Tyr Ile Asp Asp Pro Lys Asp Arg Asp Ala  
 35 40 45  
 Val Ser Gln Val Cys Arg Arg Trp Tyr Glu Leu Asp Ser Leu Thr Arg  
 50 55 60  
 Lys His Val Thr Ile Ala Leu Cys Tyr Thr Thr Thr Pro Ala Arg Leu  
 65 70 75 80  
 Arg Arg Arg Phe Pro His Leu Glu Ser Leu Lys Leu Lys Gly Lys Pro  
 85 90 95

Arg Ala Ala Met Phe Asn Leu Ile Pro Glu Asp Trp Gly Gly His Val  
 100 105 110  
 Thr Pro Trp Val Lys Glu Ile Ser Gln Tyr Phe Asp Cys Leu Lys Ser  
 115 120 125  
 Leu His Phe Arg Arg Met Ile Val Lys Asp Ser Asp Leu Gln Asn Leu  
 130 135 140  
 Ala Arg Asp Arg Gly His Val Leu His Ala Leu Lys Leu Asp Lys Cys  
 145 150 155 160  
 Ser Gly Phe Thr Thr Asp Gly Leu Phe His Ile Gly Arg Phe Cys Lys  
 165 170 175  
 Ser Leu Arg Val Leu Phe Leu Glu Glu Ser Ser Ile Leu Glu Lys Asp  
 180 185 190  
 Gly Glu Trp Leu His Glu Leu Ala Leu Asn Asn Thr Val Leu Glu Thr  
 195 200 205  
 Leu Asn Phe Tyr Leu Thr Asp Ile Ala Val Val Lys Ile Glu Asp Leu  
 210 215 220  
 Glu Leu Leu Ala Lys Asn Cys Pro Asn Leu Val Ser Val Lys Leu Thr  
 225 230 235 240  
 Asp Cys Glu Ile Leu Asp Leu Val Asn Phe Phe Lys His Ala Ser Ala  
 245 250 255  
 Leu Glu Glu Phe Cys Gly Gly Thr Tyr Asn Glu Glu Pro Glu Arg Tyr  
 260 265 270  
 Ser Ala Ile Ser Leu Pro Ala Lys Leu Cys Arg Leu Gly Leu Thr Tyr  
 275 280 285  
 Ile Gly Lys Asn Glu Leu Pro Ile Val Phe Met Phe Ala Ala Val Leu  
 290 295 300  
 Lys Lys Leu Asp Leu Leu Tyr Ala Met Leu Asp Thr Glu Asp His Cys  
 305 310 315 320  
 Met Leu Ile Gln Arg Cys Pro Asn Leu Glu Val Leu Glu Thr Arg Asn  
 325 330 335  
 Val Ile Gly Asp Arg Gly Leu Glu Val Leu Gly Arg Cys Cys Lys Arg  
 340 345 350  
 Leu Lys Arg Leu Arg Ile Glu Arg Gly Asp Asp Asp Gln Gly Met Glu  
 355 360 365  
 Asp Glu Glu Gly Thr Val Ser His Arg Gly Leu Ile Ala Leu Ser Gln  
 370 375 380  
 Gly Cys Ser Glu Leu Glu Tyr Met Ala Val Tyr Val Ser Asp Ile Thr  
 385 390 395 400  
 Asn Ala Ser Leu Glu His Ile Gly Thr His Leu Lys Asn Leu Cys Asp  
 405 410 415

Phe Arg Leu Val Leu Leu Asp His Glu Glu Lys Ile Thr Asp Leu Pro  
 420 425 430  
 Leu Asp Asn Gly Val Arg Ala Leu Leu Arg Gly Cys Asp Lys Leu Arg  
 435 440 445  
 Arg Phe Ala Leu Tyr Leu Arg Arg Gly Gly Leu Thr Asp Val Gly Leu  
 450 455 460  
 Gly Tyr Ile Gly Gln Tyr Ser Pro Asn Val Arg Trp Met Leu Leu Gly  
 465 470 475 480  
 Tyr Val Gly Glu Ser Asp Ala Gly Leu Leu Glu Phe Ala Lys Gly Cys  
 485 490 495  
 Pro Ser Leu Gln Lys Leu Glu Met Arg Gly Cys Leu Phe Phe Ser Glu  
 500 505 510  
 Arg Ala Leu Ala Val Ala Ala Thr Gln Leu Thr Ser Leu Arg Tyr Leu  
 515 520 525  
 Trp Val Gln Gly Tyr Gly Val Ser Pro Ser Gly Arg Asp Leu Leu Val  
 530 535 540  
 Met Ala Arg Pro Phe Trp Asn Ile Glu Leu Ile Pro Ser Arg Lys Val  
 545 550 555 560  
 Ala Thr Asn Thr Asn Pro Asp Glu Thr Val Val Val Glu His Pro Ala  
 565 570 575  
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 cctganaanc ccttccactg gtatacaaaag gccgacg 577

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 <212> PRT  
 <213> Triticum aestivum

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<220>  
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 <222> (136)

<220>  
 <221> UNSURE  
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 Tyr Met Thr Glu Leu Lys Val Glu Pro Ala Asp Leu Glu Leu Leu Ala  
 35 40 45  
 Arg Asn Cys Lys Ser Leu Ile Ser Leu Lys Met Ser Asp Cys Asp Leu  
 50 55 60  
 Ser Asp Leu Ile Gly Phe Leu Gln Thr Ser Lys Ala Leu Gln Glu Ser  
 65 70 75 80  
 Ala Gly Arg Arg Phe Phe Arg Ser Arg Arg Val His Gln Val Arg Lys  
 85 90 95

Gly Xaa Ser His Leu Ala Met Leu Leu Gly Gly Pro Thr Phe Met Gly  
                   100                  105                  110

Lys Asn Glu Ser Arg Tyr Phe Pro Tyr Pro Arg Arg Leu Lys Thr Gly  
                   115                  120                  125

Pro Ala Tyr Thr Ser Ser Gln Xaa Lys Xaa Arg His Leu Thr Leu Lys  
           130                  135                  140

Pro Asn Leu Arg Val Ser Arg Gly Ala Gly Thr Asn Arg Pro Ile  
   145                  150                  155

<210> 25  
 <211> 486  
 <212> DNA  
 <213> Triticum aestivum

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 <222> (197)

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gccggcgcgagg agccttaggc ggggatgggc ggggagggccc cggagccgcg gcggctgagc 120
cgcgcgctca gcctggacgg cggcgggcgtc ccggaggagg cgctgcacct ggtgctcggc 180
tacgtggacg acccgcnca cgcgaggcg gectcgctgg cgtgccgccg ctggcaccac 240
atcgacgcgc tcacgcggaa gcacgtcacc gtgcncttct gctacgccng tgtccccngc 300
gcccctgctc gcgcgcttcc cgcgcctcga gtcnctcggg gtcaanggca agcccgcgcc 360
gccatgtacg gctcatcccc gacgactggg gcgcctacnc ccgggccctg cgtccctgag 420
ctcgccgccc cgctcgattg nctcaaggcg gctcaacctt gcncncaan gtcgtcaccg 480
acgaca 486

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<210> 26
<211> 134
<212> PRT
<213> Triticum aestivum

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<220>
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<222> (38)

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<220>
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<222> (64)

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<220>
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<220>
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<220>
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<222> (84)

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<220>
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<222> (88)

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<220>
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<222> (119)

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<220>
<221> UNSURE
<222> (127)..(128)..(129)

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<400> 26
Met Gly Gly Glu Ala Pro Glu Pro Arg Arg Leu Ser Arg Ala Leu Ser
  1              5              10              15

Leu Asp Gly Gly Gly Val Pro Glu Glu Ala Leu His Leu Val Leu Gly
      20              25              30

Tyr Val Asp Asp Pro Xaa Asp Arg Glu Ala Ala Ser Leu Ala Cys Arg
  35              40              45

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Arg Trp His His Ile Asp Ala Leu Thr Arg Lys His Val Thr Val Xaa  
50 55 60

Phe Cys Tyr Ala Xaa Val Pro Xaa Ala Pro Ala Arg Ala Leu Pro Ala  
65 70 75 80

Pro Arg Val Xaa Arg Gly Gln Xaa Gln Ala Arg Ala Ala Met Tyr Gly  
85 90 95

Ser Ser Pro Thr Thr Gly Ala Pro Thr Pro Gly Pro Cys Val Pro Glu  
100 105 110

Leu Ala Ala Pro Leu Asp Xaa Leu Lys Ala Ala Gln Pro Cys Xaa Xaa  
115 120 125

Xaa Ser Ser Pro Thr Thr  
130

<210> 27  
<211> 1074  
<212> DNA  
<213> Triticum aestivum

<400> 27  
gcacgaggta ggattgatgg ctgtagctga aggctgtcct gatttggagt actgggcagt 60  
acatgtgtct gacattacaa atgcagctct tgaggctatt ggcgcattca gcaaaaacct 120  
gaacgatttc cgacttgtcc tgcttgatag agagggtgcat ataactgaac tgccccttga 180  
caacgggggtt cgggctttgc tgagagggtg caccaaaactc cggaggtttg cattttatgt 240  
gagacctgga gctctatcag atattggcct ttcttatgtt ggcgaattta gcaagaccgt 300  
ccgctacatg ttgcttggga atgccggggg gtctgatgat ggactgctgg catttgcacg 360  
aggatgcccc agcttgcaga aattggagct aaggagttgc tgctttagtg aacgtgcatt 420  
ggcagttgca gccttacagc tgaagtcact cagatatctt tgggtgcagg gatacaaggc 480  
atctcctact ggcaccgatc tcatggcaat ggtacgcccc ttctggaaca ttgagtttat 540  
tgcaccaaatt caagatgagc cttgcccaga gggtcaggca cagattcttg catactactc 600  
tctggctggg gcaaggacag attgtcctca gtcagtaatt cccctccatc cgtcagtggg 660  
aagctaaaaa gaccaccacc agtttgactg tacatacatg tttgatgcca gcaaaaacca 720  
caatgcggtg tagggacatt ccacettaca gtgccaatga cgggactgaa agctcaagta 780  
aaagcgaccc actctgaact gccttggtat cttaggggca acatttttgg gtaagctggt 840  
catctggcca acatggatat ctttgtgtac tacaccattt tgacatggct cggacacgca 900  
tttttgtaat aatgtgcccc gttgtaatgg catttttctg ttcttgagct ttgcccactg 960  
tattgttggt ctacaaacag tattggatta gttgtgttac catctgtgaa acaatctgca 1020  
caatgttatg tttaacccat gaatatcttg aaaaaaaaaa aaaaaaaaaa aaaa 1074

<210> 28  
<211> 221  
<212> PRT  
<213> Triticum aestivum

<400> 28  
His Glu Val Gly Leu Met Ala Val Ala Glu Gly Cys Pro Asp Leu Glu  
1 5 10 15

Tyr Trp Ala Val His Val Ser Asp Ile Thr Asn Ala Ala Leu Glu Ala  
20 25 30

Ile Gly Ala Phe Ser Lys Asn Leu Asn Asp Phe Arg Leu Val Leu Leu  
35 40 45

Asp Arg Glu Val His Ile Thr Glu Leu Pro Leu Asp Asn Gly Val Arg  
50 55 60

Ala Leu Leu Arg Gly Cys Thr Lys Leu Arg Arg Phe Ala Phe Tyr Val  
65 70 75 80

Arg Pro Gly Ala Leu Ser Asp Ile Gly Leu Ser Tyr Val Gly Glu Phe  
85 90 95

Ser Lys Thr Val Arg Tyr Met Leu Leu Gly Asn Ala Gly Gly Ser Asp  
100 105 110

Asp Gly Leu Leu Ala Phe Ala Arg Gly Cys Pro Ser Leu Gln Lys Leu  
115 120 125

Glu Leu Arg Ser Cys Cys Phe Ser Glu Arg Ala Leu Ala Val Ala Ala  
130 135 140

Leu Gln Leu Lys Ser Leu Arg Tyr Leu Trp Val Gln Gly Tyr Lys Ala  
145 150 155 160

Ser Pro Thr Gly Thr Asp Leu Met Ala Met Val Arg Pro Phe Trp Asn  
165 170 175

Ile Glu Phe Ile Ala Pro Asn Gln Asp Glu Pro Cys Pro Glu Gly Gln  
180 185 190

Ala Gln Ile Leu Ala Tyr Tyr Ser Leu Ala Gly Ala Arg Thr Asp Cys  
195 200 205

Pro Gln Ser Val Ile Pro Leu His Pro Ser Val Gly Ser  
210 215 220

<210> 29  
<211> 1812  
<212> DNA  
<213> *Oryza sativa*

<220>  
<221> unsure  
<222> (1108)

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gtttcctact ctcttcttca gtttctcacc tctcgcacg agaaaattcg aatccccctt 120  
ccggctgctg gttttcgtgc cagaaacagg cgattttacc agtgccagtt agctctcgcc 180  
ttcctcctcc tccatcgtag tactactctg ttcttctgga agaactctgg tctcctcgcc 240  
tacctcagtc accactcacc acaccagggt cgagctataa aaaccggcac gccaaaaatc 300  
ttcaaaaacca cacagaaacc tcagatctcc gaggtttcca agcgagtcga cgaaaatgcc 360  
cgtgatggct ccgaccgat ctcttctcct ctccccgagg ccgctgccgg cgagccgccg 420  
ggctcccctcg ctcccggcgc tctcggttcc cggtcgctcg cgcctccgcc gcgcccgcgc 480  
cgacacacgg ctccgcgtgg cggcgccgcc gtcggtcccc ggggaggcgg accaggcgcc 540  
cggggagacc gagccgagca cgtcgtcggc cgacgagaag ttctgtgtga gggaccactg 600  
gtaccccgtg tccctcgtag aggaacctga cccagcgtg cccacccctg tccagtcctt 660  
caaccgcgac ctgctcatct ggaaggaccc aaaatccggc gagggtggcg ccctcgacga 720  
ccgttgcccc catcgctcg cgccccctct ggagggggcg atcgatgaga cggggtgctt 780  
gcagtgtcga taccacgggt ggtcattcga tggctccggc gctgacccc ggatcccgca 840  
ggcggcgccc gaggggcccg aggccaaagg tgtgaggtcg ccgaaggcgt gcgcgatcaa 900  
gttccccacc ctgctctcgc aagggtgct ctctgtgtgg cccgacgaga atgggtggga 960  
gaaggccacg gctaccaagc ctccgatgtt accgaaggag tttgaggatc ctgcgttctc 1020  
cacggtgacc atccagaggg atctgtacta tggctatgat acattgatgg agaacgtctc 1080  
tgatccgtcg catatagaat ttgctcanca caaggtcact ggtcgaagag atcgagccag 1140

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gcctttgcc a ttcaagatgg aatcaagtgg tgcattggga tattcagggt caaattctgg 1200
aaaccctcgc atcagtgc aa cttttgtggc cccttgctat gcactgaaca aaattgagat 1260
agacacaaaag ttaccattt ttggagatca gaaatgggtc atatggattt gctctttcaa 1320
cattccaatg gccccaggga agactcgttc tatagtttgt agtgctcgga actttttcca 1380
gttttagcatg ccaggaaaag catggtggca gcttgccct cgatggtatg agcattggac 1440
ttcaaatttg gtctatgatg gtgatatgat agttctgcaa gggcaagaga agattttctt 1500
gtctgcatcg aaggagtctt ctgcagatat taatcagcag tacacaaaga tcacgtttac 1560
acccacgcag gctgaccgtt ttgttttggc attccgggca tggctaagga aatttggtta 1620
cagccaacct gactggtttg gaaatcctag ccaagaagtg ttgccttcca ctgtcctttc 1680
aaagcgtgag atgctagata gatatgagca gcacacactg aaatgctcat cttgcaaagg 1740
ggcatacaac gccttccaga ctctgcaaaa ggtcttcatg ggagcgacag tggccgttct 1800
attattgctt gc 1812

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<210> 30  
 <211> 485  
 <212> PRT  
 <213> Oryza sativa

<220>  
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 <222> (251)

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 1 5 10 15  
 Leu Pro Ala Ser Arg Arg Val Pro Ser Leu Pro Ala Leu Ser Ala Ser  
 20 25 30  
 Gly Arg Leu Arg Leu Arg Arg Ala Arg Ala Asp Thr Arg Leu Arg Val  
 35 40 45  
 Ala Ala Pro Pro Ser Val Pro Gly Glu Ala Asp Gln Ala Pro Gly Glu  
 50 55 60  
 Thr Glu Pro Ser Thr Ser Ser Ala Asp Glu Lys Phe Val Trp Arg Asp  
 65 70 75 80  
 His Trp Tyr Pro Val Ser Leu Val Glu Asp Leu Asp Pro Ser Val Pro  
 85 90 95  
 Thr Pro Phe Gln Leu Leu Asn Arg Asp Leu Val Ile Trp Lys Asp Pro  
 100 105 110  
 Lys Ser Gly Glu Trp Val Ala Leu Asp Asp Arg Cys Pro His Arg Leu  
 115 120 125  
 Ala Pro Leu Ser Glu Gly Arg Ile Asp Glu Thr Gly Cys Leu Gln Cys  
 130 135 140  
 Ser Tyr His Gly Trp Ser Phe Asp Gly Ser Gly Ala Cys Thr Arg Ile  
 145 150 155 160  
 Pro Gln Ala Ala Pro Glu Gly Pro Glu Ala Lys Ala Val Arg Ser Pro  
 165 170 175  
 Lys Ala Cys Ala Ile Lys Phe Pro Thr Leu Val Ser Gln Gly Leu Leu  
 180 185 190

Phe Val Trp Pro Asp Glu Asn Gly Trp Glu Lys Ala Thr Ala Thr Lys  
 195 200 205  
 Pro Pro Met Leu Pro Lys Glu Phe Glu Asp Pro Ala Phe Ser Thr Val  
 210 215 220  
 Thr Ile Gln Arg Asp Leu Tyr Tyr Gly Tyr Asp Thr Leu Met Glu Asn  
 225 230 235 240  
 Val Ser Asp Pro Ser His Ile Glu Phe Ala Xaa His Lys Val Thr Gly  
 245 250 255  
 Arg Arg Asp Arg Ala Arg Pro Leu Pro Phe Lys Met Glu Ser Ser Gly  
 260 265 270  
 Ala Trp Gly Tyr Ser Gly Ser Asn Ser Gly Asn Pro Arg Ile Ser Ala  
 275 280 285  
 Thr Phe Val Ala Pro Cys Tyr Ala Leu Asn Lys Ile Glu Ile Asp Thr  
 290 295 300  
 Lys Leu Pro Ile Phe Gly Asp Gln Lys Trp Val Ile Trp Ile Cys Ser  
 305 310 315 320  
 Phe Asn Ile Pro Met Ala Pro Gly Lys Thr Arg Ser Ile Val Cys Ser  
 325 330 335  
 Ala Arg Asn Phe Phe Gln Phe Ser Met Pro Gly Lys Ala Trp Trp Gln  
 340 345 350  
 Leu Val Pro Arg Trp Tyr Glu His Trp Thr Ser Asn Leu Val Tyr Asp  
 355 360 365  
 Gly Asp Met Ile Val Leu Gln Gly Gln Glu Lys Ile Phe Leu Ser Ala  
 370 375 380  
 Ser Lys Glu Ser Ser Ala Asp Ile Asn Gln Gln Tyr Thr Lys Ile Thr  
 385 390 395 400  
 Phe Thr Pro Thr Gln Ala Asp Arg Phe Val Leu Ala Phe Arg Ala Trp  
 405 410 415  
 Leu Arg Lys Phe Gly Asn Ser Gln Pro Asp Trp Phe Gly Asn Pro Ser  
 420 425 430  
 Gln Glu Val Leu Pro Ser Thr Val Leu Ser Lys Arg Glu Met Leu Asp  
 435 440 445  
 Arg Tyr Glu Gln His Thr Leu Lys Cys Ser Ser Cys Lys Gly Ala Tyr  
 450 455 460  
 Asn Ala Phe Gln Thr Leu Gln Lys Val Phe Met Gly Ala Thr Val Ala  
 465 470 475 480  
 Val Leu Leu Leu Leu  
 485

<210> 31  
 <211> 1930

<212> DNA  
<213> Glycine max

<400> 31  
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 ctcatTTtgaa cctctataaaa caaatttttca aaccttaaca ccttacgaaa atcaactaaa 120  
 gaaaaccatt gatggcgctc cctcactcca tctctgcctt agccaccaca ctacactct 180  
 cctccccaat aaccaaaaccc cataaagtta acccctttcc cttttcctcg aaccgaaatt 240  
 cacaattttt aacgaaacaa acgcgaccca gaagcagaag aaacctctcc ctaacccctg 300  
 cacgcgttgc ggcgccaccc tcaacggttg aagccgatcg attataccca gaggcgaaa 360  
 ataacgaaac tgaggaagag tttagcgacg agagctcttc ctctaaattc acttgagggg 420  
 atcactggta ccctgtctcg ttaattgaag atctgaaccc tctcttgccc acaccgtttc 480  
 agcttctggg tctgtgaaatc gtgctctggg acgacaagtc catttcccaa tgggttgctt 540  
 ttgatgacaa atgcccccat cgtcttgccc ctttatctga agggaggata gatgaagatg 600  
 ggaagttgca gtgttcttat catgggtggg cttttgatgg gtgtggatct tgtgttaaga 660  
 ttcttcaggc ttcacttgaa ggccccgaag cacgtgctat tggatctcct aaagcatgtg 720  
 ccactaggtt ccctaccttg gtgtcccagg gtttgcctct tgtatgggtg gatgagaatt 780  
 gtgtgggaaa agcaaaaggc tccaaccctc caatgtttcc tgatgacttt gacaaaccgg 840  
 agttttccac ggtcaacata cagcgtgatt tgttctatgg ttacgatact cttatggaga 900  
 atgtctctga tcttctctac attgagtttg ctcatcacia ggtcacggga aggagagaca 960  
 gagccaaacc tctgccattc aagatggatt ctctgtgttc atggggcttc tctggagcta 1020  
 atgaagggaa cccacagatc agtgccaagt ttgttgacc atgttatatg atgaacaaga 1080  
 ttgagattga taccaaactc cctgtagttg gtgaccagaa atgggtagta tggatatgtt 1140  
 ccttcaatgt ccccatggca cctggtaaga ctgcctccat tgtttgcagt gctcgaaact 1200  
 tcttcaggtt ctcaagtcca gggcctgcct ggtggcaagt caactgagta atcttactgt 1260  
 ttgcattcaa ttttaaacaa tgcatacatg taactcaggt cgttcctaga tggtagagc 1320  
 attggacttc aaataaggta tatgatggag acatgattgt ccttcaaggt caagagaaaa 1380  
 tcttcttttc agaaaccaag gaaggtgggtg acattaacaa acagtacaca aacatcacct 1440  
 tcacaccaac acaggcagat cgctttgtct tggcattccg aaattggctg aggcgacatg 1500  
 gcaatggcca accagaatgg tttggaacaa gcagcgacca gccattgcca tcaactgtgt 1560  
 tatcaaaacg tcagatgttg gatagatttg aacagcacac tctcaagtgt tcatcatgta 1620  
 aagcagcata tgagggattc caaacatggc agaaagtctt aattggggca acagttgtgt 1680  
 tttgtgcaac atcagggatc ccatcagatt tccagttgcg tgtacttttg gctggactcg 1740  
 cagttgtcag cgcagccata gcttttgccc taaaccaact ccaaaagaat tttgaattcg 1800  
 tggattacgt gcatgcgga atcgattaag cacgtccctc caaaggaact tcaactagtt 1860  
 agttgtaaat agagttgaag acaagtacat gtacactagt attttgatga aaagagctca 1920  
 aatctacctt 1930

<210> 32  
 <211> 563  
 <212> PRT  
 <213> Glycine max

<400> 32  
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 1 5 10 15  
 Ser Ser Pro Ile Thr Lys Pro His Lys Val Asn Pro Phe Pro Phe Ser  
 20 25 30  
 Ser Asn Arg Asn Ser Gln Phe Leu Thr Lys Gln Thr Arg Pro Arg Ser  
 35 40 45  
 Arg Arg Asn Leu Ser Leu Thr Pro Ala Arg Val Ala Ala Pro Pro Ser  
 50 55 60  
 Thr Val Glu Ala Asp Arg Leu Tyr Pro Glu Ala Glu Asn Asn Glu Thr  
 65 70 75 80

Glu	Glu	Glu	Phe	Ser	Asp	Glu	Ser	Ser	Ser	Lys	Phe	Thr	Trp	Arg	Asp
				85						90				95	
His	Trp	Tyr	Pro	Val	Ser	Leu	Ile	Glu	Asp	Leu	Asn	Pro	Leu	Leu	Pro
			100					105					110		
Thr	Pro	Phe	Gln	Leu	Leu	Gly	Arg	Glu	Ile	Val	Leu	Trp	Tyr	Asp	Lys
		115					120					125			
Ser	Ile	Ser	Gln	Trp	Val	Ala	Phe	Asp	Asp	Lys	Cys	Pro	His	Arg	Leu
	130					135					140				
Ala	Pro	Leu	Ser	Glu	Gly	Arg	Ile	Asp	Glu	Asp	Gly	Lys	Leu	Gln	Cys
					150					155					160
Ser	Tyr	His	Gly	Trp	Ser	Phe	Asp	Gly	Cys	Gly	Ser	Cys	Val	Lys	Ile
				165					170					175	
Pro	Gln	Ala	Ser	Ser	Glu	Gly	Pro	Glu	Ala	Arg	Ala	Ile	Gly	Ser	Pro
			180					185					190		
Lys	Ala	Cys	Ala	Thr	Arg	Phe	Pro	Thr	Leu	Val	Ser	Gln	Gly	Leu	Leu
		195					200					205			
Phe	Val	Trp	Ala	Asp	Glu	Asn	Gly	Trp	Glu	Lys	Ala	Lys	Ala	Ser	Asn
	210					215					220				
Pro	Pro	Met	Phe	Pro	Asp	Asp	Phe	Asp	Lys	Pro	Glu	Phe	Pro	Thr	Val
					230					235					240
Asn	Ile	Gln	Arg	Asp	Leu	Phe	Tyr	Gly	Tyr	Asp	Thr	Leu	Met	Glu	Asn
				245					250					255	
Val	Ser	Asp	Pro	Ser	His	Ile	Glu	Phe	Ala	His	His	Lys	Val	Thr	Gly
			260					265					270		
Arg	Arg	Asp	Arg	Ala	Lys	Pro	Leu	Pro	Phe	Lys	Met	Asp	Ser	Arg	Gly
		275					280					285			
Ser	Trp	Gly	Phe	Ser	Gly	Ala	Asn	Glu	Gly	Asn	Pro	Gln	Ile	Ser	Ala
		290				295					300				
Lys	Phe	Val	Ala	Pro	Cys	Tyr	Met	Met	Asn	Lys	Ile	Glu	Ile	Asp	Thr
	305				310					315					320
Lys	Leu	Pro	Val	Val	Gly	Asp	Gln	Lys	Trp	Val	Val	Trp	Ile	Cys	Ser
				325					330					335	
Phe	Asn	Val	Pro	Met	Ala	Pro	Gly	Lys	Thr	Arg	Ser	Ile	Val	Cys	Ser
			340					345					350		
Ala	Arg	Asn	Phe	Phe	Gln	Phe	Ser	Val	Pro	Gly	Pro	Ala	Trp	Trp	Gln
		355					360					365			
Val	Asn	Val	Ile	Leu	Leu	Phe	Ala	Phe	Asn	Phe	Lys	Gln	Cys	Ile	His
	370					375					380				
Val	Thr	Gln	Val	Val	Pro	Arg	Trp	Tyr	Glu	His	Trp	Thr	Ser	Asn	Lys
	385				390					395					400

Val Tyr Asp Gly Asp Met Ile Val Leu Gln Gly Gln Glu Lys Ile Phe  
 405 410 415  
 Leu Ser Glu Thr Lys Glu Gly Gly Asp Ile Asn Lys Gln Tyr Thr Asn  
 420 425 430  
 Ile Thr Phe Thr Pro Thr Gln Ala Asp Arg Phe Val Leu Ala Phe Arg  
 435 440 445  
 Asn Trp Leu Arg Arg His Gly Asn Gly Gln Pro Glu Trp Phe Gly Asn  
 450 455 460  
 Ser Ser Asp Gln Pro Leu Pro Ser Thr Val Leu Ser Lys Arg Gln Met  
 465 470 475 480  
 Leu Asp Arg Phe Glu Gln His Thr Leu Lys Cys Ser Ser Cys Lys Ala  
 485 490 495  
 Ala Tyr Glu Gly Phe Gln Thr Trp Gln Lys Val Leu Ile Gly Ala Thr  
 500 505 510  
 Val Val Phe Cys Ala Thr Ser Gly Ile Pro Ser Asp Phe Gln Leu Arg  
 515 520 525  
 Val Leu Leu Ala Gly Leu Ala Val Val Ser Ala Ala Ile Ala Phe Ala  
 530 535 540  
 Leu Asn Gln Leu Gln Lys Asn Phe Glu Phe Val Asp Tyr Val His Ala  
 545 550 555 560

Glu Ile Asp

<210> 33  
 <211> 555  
 <212> DNA  
 <213> Triticum aestivum

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<400> 33  
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 ctctctcccc gcgcccaggc ccagcccttg ctcccgctcc ccaccggcgt ccaagcaccg 120  
 agcgtcaggc cccaactcgt cccgcggcga cgggcgcgcc gccaccgcaa cggggcccgcg 180



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cggatgctgc cggcctcggc cgtggcgctcc gagtcgccgt ggacggancca ggagcccgcca 240
tccgggggaga angaggagcg gttcgactgg ctggaccagt ggtaccacctt cgcccccgctg 300
gaggacctgg acccggcgcg cccacggcaa atgggtgctgg gatccgcgtg gtanctggta 360
caacgcggng ccggcgaatg gcgctgttca caccgtgccc gnacgcctgg cncgnetcga 420
gggcgcacatca caaaaggcgg ncagtcgtta cacgggtggn ctcacgncgc gggctgaatt 480
ancccaggcc cgcctcggca acngnaaca aaacagggnn gtgnttaacc gtctgtgana 540
naanttgtgt ctccn 555

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<210> 34
<211> 144
<212> PRT
<213> Triticum aestivum

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<220>
<221> UNSURE
<222> (62)

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<220>
<221> UNSURE
<222> (70)

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<220>
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<222> (124)..(125)

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<220>
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<222> (140)

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<222> (142)

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<400> 34
Met Asp Pro Leu Arg Leu Leu Leu Pro Arg Ala Gln Ala Gln Pro Leu
  1              5              10              15
Leu Pro Leu Pro Thr Gly Val Gln Ala Pro Ser Val Arg Pro Gln Leu
              20              25              30
Val Pro Arg Arg Arg Ala Arg Arg His Arg Asn Gly Ala Ala Arg Met
      35              40              45
Leu Pro Ala Ser Ala Val Ala Ser Glu Ser Pro Trp Thr Xaa Gln Glu
      50              55              60
Pro Pro Ser Gly Glu Xaa Glu Glu Arg Phe Asp Trp Leu Asp Gln Trp
      65              70              75              80
Tyr Pro Phe Ala Pro Val Glu Asp Leu Asp Pro Ala Arg Pro Arg Gln
              85              90              95
Met Val Leu Gly Ser Ala Trp Xaa Leu Val Gln Arg Gly Ala Gly Glu
      100              105              110

```

Trp Arg Cys Ser His Arg Ala Arg Thr Pro Gly Xaa Xaa Arg Gly Arg  
 115 120 125

Ile Thr Lys Gly Gly Gln Ser Leu His Gly Trp Xaa His Xaa Ala Gly  
 130 135 140

<210> 35  
 <211> 1864  
 <212> DNA  
 <213> Triticum aestivum

<400> 35  
 gcacgagggc aatgtttctag aagcaccgaa gcaccgagag ataagtggca ctagtacaaa 60  
 gctggagcga ggaagatctc ggccccaaca aaacctcgga ccccttccct ccacacgatac 120  
 ccgaggaagg aaggaaaggc agacgaaatg ccggtgctgg cgatgccgtc cgccctccctc 180  
 cccctcctct ccccgggggc accggccgct gctgcgcccg tcgacctcc cgccctcccg 240  
 tctcggcagc ggcatacctc gcgtggccgc gccgacgtcg gtccccggcg aggcggagcg 300  
 ggcggaggag ccgagcacga gcacgagcac ctgcctgaa tcgtccgggg agaagtctgt 360  
 gtggcgggac cactggtacc cgtctcgtc cgtggaggac ctggacccgc gcgtgccac 420  
 cccgttccag ctctcaacc gcgacctcgt catctggaac gaccccaact ccggcgactg 480  
 ggtcgcgtc gacgaccgt gcccgaccg cctcgccccg ctctcgagg ggcgatcga 540  
 cgagacgggc ggctgcagt gtcctacca cggttggtcc ttcgacggct ccggcgctg 600  
 caccagatc ccgcaggccg cgcccgagg gcccgaggcc cgggcgggtg gctcgccag 660  
 ggctgcgccc accaagttcc ccacctcct ctcccagggc ctgctcttcg tctggcctga 720  
 cgagaatgga tgggacaagg ccaaggccac caagcctcca atgctgccga aggagtctga 780  
 tgacccggcc ttctccaccg tgacgatcca gagggacctc ttctatgggt atgacacgtt 840  
 gatggagaac gtctctgatc cctcgcatat agaatttgct caccacaagg tcaactggacg 900  
 aagagataga gccaaagcctt tgccatttaa aatggaatca agtggcgcat ggggatattc 960  
 aggggcaaatt accggcaatc ctgcgcatcac tgcaactttc gaggccccctt gctatgact 1020  
 gaacaaaata gagattgaca ccaaattacc gattgtggga gatcagaaat gggcatatg 1080  
 gatttgctcc ttcaacattc caatggcccc agggaaaact cgttctattg tctgtagtgc 1140  
 tcgaaacttt ttccagttta caatgccagg aaaggcatgg tggcagtttg tccctcgatg 1200  
 gtacgaacat tggacctcaa atttggtcta cgacggcgat atgatcgtgc ttcaaggcca 1260  
 agagaagggt ttctgtctg catccaagga gtctgtgca gatgttaatc agcagtacac 1320  
 aaagctcaca ttcacacca cacaggccga ccgattgtt ttagcattcc gggcatggct 1380  
 acgaaaattc ggaaatagcc agcctgactg gtatggaagt cctagccaag atgcattgcc 1440  
 ttctacggtc ctttcaaagc gagagatgct agacagatac gagcagcaca cgctgaaatg 1500  
 ctctgctcgc agaggagcgc acaaggcctt tcagactttg cagaagggtg tcatgggggc 1560  
 gacgggtggtg tttggcgcca catccgggat ccctgcggat gttcagctca gaattatgct 1620  
 cggtgccggg gctctggtca gcgcgctct ggctatgtc ttctacgacc gccagaagca 1680  
 tttcgtgttt gtggactacg tgcacgctga cattgattga ttagggagat aaacattagt 1740  
 tatttttggt aggatctggt gtggtgtggt gtggagacat cccacgatca atcatgtgca 1800  
 taacctagcc aaggagtaca tatagctttc agtgggtaca tgagattggc ccagtatgtt 1860  
 gttt 1864

<210> 36  
 <211> 487  
 <212> PRT  
 <213> Triticum aestivum

<400> 36  
 Leu Arg Val Ala Ala Pro Thr Ser Val Pro Gly Glu Ala Glu Arg Ala  
 1 5 10 15

Glu Glu Pro Ser Thr Ser Thr Ser Thr Ser Pro Glu Ser Ser Gly Glu  
 20 25 30

Lys Phe Val Trp Arg Asp His Trp Tyr Pro Val Ser Leu Val Glu Asp  
 35 40 45

Leu Asp Pro Arg Val Pro Thr Pro Phe Gln Leu Leu Asn Arg Asp Leu  
 50 55 60  
 Val Ile Trp Asn Asp Pro Asn Ser Gly Asp Trp Val Ala Leu Asp Asp  
 65 70 75 80  
 Arg Cys Pro His Arg Leu Ala Pro Leu Ser Glu Gly Arg Ile Asp Glu  
 85 90 95  
 Thr Gly Gly Leu Gln Cys Ser Tyr His Gly Trp Ser Phe Asp Gly Ser  
 100 105 110  
 Gly Ala Cys Thr Arg Ile Pro Gln Ala Ala Pro Glu Gly Pro Glu Ala  
 115 120 125  
 Arg Ala Val Arg Ser Pro Arg Ala Cys Ala Thr Lys Phe Pro Thr Leu  
 130 135 140  
 Leu Ser Gln Gly Leu Leu Phe Val Trp Pro Asp Glu Asn Gly Trp Asp  
 145 150 155 160  
 Lys Ala Lys Ala Thr Lys Pro Pro Met Leu Pro Lys Glu Phe Asp Asp  
 165 170 175  
 Pro Ala Phe Ser Thr Val Thr Ile Gln Arg Asp Leu Phe Tyr Gly Tyr  
 180 185 190  
 Asp Thr Leu Met Glu Asn Val Ser Asp Pro Ser His Ile Glu Phe Ala  
 195 200 205  
 His His Lys Val Thr Gly Arg Arg Asp Arg Ala Lys Pro Leu Pro Phe  
 210 215 220  
 Lys Met Glu Ser Ser Gly Ala Trp Gly Tyr Ser Gly Ala Asn Thr Gly  
 225 230 235 240  
 Asn Pro Arg Ile Thr Ala Thr Phe Glu Ala Pro Cys Tyr Ala Leu Asn  
 245 250 255  
 Lys Ile Glu Ile Asp Thr Lys Leu Pro Ile Val Gly Asp Gln Lys Trp  
 260 265 270  
 Val Ile Trp Ile Cys Ser Phe Asn Ile Pro Met Ala Pro Gly Lys Thr  
 275 280 285  
 Arg Ser Ile Val Cys Ser Ala Arg Asn Phe Phe Gln Phe Thr Met Pro  
 290 295 300  
 Gly Lys Ala Trp Trp Gln Phe Val Pro Arg Trp Tyr Glu His Trp Thr  
 305 310 315 320  
 Ser Asn Leu Val Tyr Asp Gly Asp Met Ile Val Leu Gln Gly Gln Glu  
 325 330 335  
 Lys Val Phe Leu Ser Ala Ser Lys Glu Ser Ser Ala Asp Val Asn Gln  
 340 345 350  
 Gln Tyr Thr Lys Leu Thr Phe Thr Pro Thr Gln Ala Asp Arg Phe Val  
 355 360 365

Leu Ala Phe Arg Ala Trp Leu Arg Lys Phe Gly Asn Ser Gln Pro Asp  
 370 375 380  
 Trp Tyr Gly Ser Pro Ser Gln Asp Ala Leu Pro Ser Thr Val Leu Ser  
 385 390 395 400  
 Lys Arg Glu Met Leu Asp Arg Tyr Glu Gln His Thr Leu Lys Cys Ser  
 405 410 415  
 Ser Cys Arg Gly Ala His Lys Ala Phe Gln Thr Leu Gln Lys Val Phe  
 420 425 430  
 Met Gly Ala Thr Val Val Phe Gly Ala Thr Ser Gly Ile Pro Ala Asp  
 435 440 445  
 Val Gln Leu Arg Ile Leu Leu Gly Ala Gly Ala Leu Val Ser Ala Ala  
 450 455 460  
 Leu Ala Tyr Val Phe Tyr Asp Arg Gln Lys His Phe Val Phe Val Asp  
 465 470 475 480  
 Tyr Val His Ala Asp Ile Asp  
 485

<210> 37  
 <211> 592  
 <212> PRT  
 <213> Arabidopsis thaliana

<400> 37

Met Glu Asp Pro Asp Ile Lys Arg Cys Lys Leu Ser Cys Val Ala Thr  
 1 5 10 15  
 Val Asp Asp Val Ile Glu Gln Val Met Thr Tyr Ile Thr Asp Pro Lys  
 20 25 30  
 Asp Arg Asp Ser Ala Ser Leu Val Cys Arg Arg Trp Phe Lys Ile Asp  
 35 40 45  
 Ser Glu Thr Arg Glu His Val Thr Met Ala Leu Cys Tyr Thr Ala Thr  
 50 55 60  
 Pro Asp Arg Leu Ser Arg Arg Phe Pro Asn Leu Arg Ser Leu Lys Leu  
 65 70 75 80  
 Lys Gly Lys Pro Arg Ala Ala Met Phe Asn Leu Ile Pro Glu Asn Trp  
 85 90 95  
 Gly Gly Tyr Val Thr Pro Trp Val Thr Glu Ile Ser Asn Asn Leu Arg  
 100 105 110  
 Gln Leu Lys Ser Val His Phe Arg Arg Met Ile Val Ser Asp Leu Asp  
 115 120 125  
 Leu Asp Arg Leu Ala Lys Ala Arg Ala Asp Asp Leu Glu Thr Leu Lys  
 130 135 140  
 Leu Asp Lys Cys Ser Gly Phe Thr Thr Asp Gly Leu Leu Ser Ile Val  
 145 150 155 160

Thr His Cys Arg Lys Ile Lys Thr Leu Leu Met Glu Glu Ser Ser Phe  
 165 170 175  
 Ser Glu Lys Asp Gly Lys Trp Leu His Glu Leu Ala Gln His Asn Thr  
 180 185 190  
 Ser Leu Glu Val Leu Asn Phe Tyr Met Thr Glu Phe Ala Lys Ile Ser  
 195 200 205  
 Pro Lys Asp Leu Glu Thr Ile Ala Arg Asn Cys Arg Ser Leu Val Ser  
 210 215 220  
 Val Lys Val Gly Asp Phe Glu Ile Leu Glu Leu Val Gly Phe Phe Lys  
 225 230 235 240  
 Ala Ala Ala Asn Leu Glu Glu Phe Cys Gly Gly Ser Leu Asn Glu Asp  
 245 250 255  
 Ile Gly Met Pro Glu Lys Tyr Met Asn Leu Val Phe Pro Arg Lys Leu  
 260 265 270  
 Cys Arg Leu Gly Leu Ser Tyr Met Gly Pro Asn Glu Met Pro Ile Leu  
 275 280 285  
 Phe Pro Phe Ala Ala Gln Ile Arg Lys Leu Asp Leu Leu Tyr Ala Leu  
 290 295 300  
 Leu Glu Thr Glu Asp His Cys Thr Leu Ile Gln Lys Cys Pro Asn Leu  
 305 310 315 320  
 Glu Val Leu Glu Thr Arg Asn Val Ile Gly Asp Arg Gly Leu Glu Val  
 325 330 335  
 Leu Ala Gln Tyr Cys Lys Gln Leu Lys Arg Leu Arg Ile Glu Arg Gly  
 340 345 350  
 Ala Asp Glu Gln Gly Met Glu Asp Glu Glu Gly Leu Val Ser Gln Arg  
 355 360 365  
 Gly Leu Ile Ala Leu Ala Gln Gly Cys Gln Glu Leu Glu Tyr Met Ala  
 370 375 380  
 Val Tyr Val Ser Asp Ile Thr Asn Glu Ser Leu Glu Ser Ile Gly Thr  
 385 390 395 400  
 Tyr Leu Lys Asn Leu Cys Asp Phe Arg Leu Val Leu Leu Asp Arg Glu  
 405 410 415  
 Glu Arg Ile Thr Asp Leu Pro Leu Asp Asn Gly Val Arg Ser Leu Leu  
 420 425 430  
 Ile Gly Cys Lys Lys Leu Arg Arg Phe Ala Phe Tyr Leu Arg Gln Gly  
 435 440 445  
 Gly Leu Thr Asp Leu Gly Leu Ser Tyr Ile Gly Gln Tyr Ser Pro Asn  
 450 455 460  
 Val Arg Trp Met Leu Leu Gly Tyr Val Gly Glu Ser Asp Glu Gly Leu  
 465 470 475 480

Met Glu Phe Ser Arg Gly Cys Pro Asn Leu Gln Lys Leu Glu Met Arg  
 485 490 495

Gly Cys Cys Phe Ser Glu Arg Ala Ile Ala Ala Ala Val Thr Lys Leu  
 500 505 510

Pro Ser Leu Arg Tyr Leu Trp Val Gln Gly Tyr Arg Ala Ser Met Thr  
 515 520 525

Gly Gln Asp Leu Met Gln Met Ala Arg Pro Tyr Trp Asn Ile Glu Leu  
 530 535 540

Ile Pro Ser Arg Arg Val Pro Glu Val Asn Gln Gln Gly Glu Ile Arg  
 545 550 555 560

Glu Met Glu His Pro Ala His Ile Leu Ala Tyr Tyr Ser Leu Ala Gly  
 565 570 575

Gln Arg Thr Asp Cys Pro Thr Thr Val Arg Val Leu Lys Glu Pro Ile  
 580 585 590

<210> 38

<211> 520

<212> PRT

<213> Zea mays

<400> 38

Met Arg Ala Thr Ile Pro Ala Leu Ser Leu Leu Val Thr Pro Arg Leu  
 1 5 10 15

Pro Ser Leu Ala Val Pro Leu Ala Gly Gly Arg Leu Arg Glu Gly Gly  
 20 25 30

Arg Ser Arg Thr Arg Leu Arg Val Ala Ala Pro Thr Ser Val Pro Gly  
 35 40 45

Glu Ala Ala Glu Gln Ala Glu Pro Ser Thr Ser Ala Pro Glu Ser Gly  
 50 55 60

Glu Lys Phe Ser Trp Arg Asp His Trp Tyr Pro Val Ser Leu Val Glu  
 65 70 75 80

Asp Leu Asp Pro Ser Arg Pro Thr Pro Phe Gln Leu Leu Asn Arg Asp  
 85 90 95

Leu Val Ile Trp Lys Glu Pro Lys Ser Gly Glu Trp Val Ala Leu Asp  
 100 105 110

Asp Arg Cys Pro His Arg Leu Ala Pro Leu Ser Glu Gly Arg Ile Asp  
 115 120 125

Glu Thr Gly Cys Leu Gln Cys Ser Tyr His Gly Trp Ser Phe Asp Gly  
 130 135 140

Ser Gly Ala Cys Thr Lys Ile Pro Gln Ala Met Pro Glu Gly Pro Glu  
 145 150 155 160

Ala Arg Ala Val Arg Ser Pro Lys Ala Cys Ala Ile Lys Phe Pro Thr  
 165 170 175

Leu Val Ser Gln Gly Leu Leu Phe Val Trp Pro Asp Glu Asn Gly Trp  
 180 185 190  
 Glu Lys Ala Ala Ala Thr Lys Pro Pro Met Leu Pro Lys Glu Phe Glu  
 195 200 205  
 Asp Pro Ala Phe Ser Thr Val Thr Ile Gln Arg Asp Leu Phe Tyr Gly  
 210 215 220  
 Tyr Asp Thr Leu Met Glu Asn Val Ser Asp Pro Ser His Ile Glu Phe  
 225 230 235 240  
 Ala His His Lys Val Thr Gly Arg Arg Asp Arg Ala Arg Pro Leu Thr  
 245 250 255  
 Phe Arg Met Glu Ser Ser Gly Ala Trp Gly Tyr Ser Gly Ala Asn Ser  
 260 265 270  
 Gly Asn Pro Arg Ile Thr Ala Thr Phe Glu Ala Pro Cys Tyr Ala Leu  
 275 280 285  
 Asn Lys Ile Glu Ile Asp Thr Lys Leu Pro Ile Phe Gly Asp Gln Lys  
 290 295 300  
 Trp Val Ile Trp Ile Cys Ser Phe Asn Ile Pro Met Ala Pro Gly Lys  
 305 310 315 320  
 Thr Arg Ser Ile Val Cys Ser Ala Arg Asn Phe Phe Gln Phe Thr Met  
 325 330 335  
 Pro Gly Lys Ala Trp Trp Gln Leu Val Pro Arg Trp Tyr Glu His Trp  
 340 345 350  
 Thr Ser Asn Leu Val Tyr Asp Gly Asp Met Ile Val Leu Gln Gly Gln  
 355 360 365  
 Glu Lys Ile Phe Leu Ala Ala Thr Lys Glu Ser Ser Thr Asp Ile Asn  
 370 375 380  
 Gln Gln Tyr Thr Lys Ile Thr Phe Thr Pro Thr Gln Ala Asp Arg Phe  
 385 390 395 400  
 Val Leu Ala Cys Arg Thr Trp Leu Arg Lys Phe Gly Asn Ser Gln Pro  
 405 410 415  
 Glu Trp Phe Gly Asn Pro Thr Gln Glu Ala Leu Pro Ser Thr Val Leu  
 420 425 430  
 Ser Lys Arg Glu Met Leu Asp Arg Tyr Glu Gln Leu Ser Leu Lys Cys  
 435 440 445  
 Ser Ser Cys Lys Gly Ala Tyr Asn Ala Phe Gln Asn Leu Gln Lys Val  
 450 455 460  
 Phe Met Gly Ala Thr Val Val Cys Cys Ala Ala Ala Gly Ile Pro Pro  
 465 470 475 480  
 Asp Val Gln Leu Arg Leu Leu Ile Gly Ala Ala Ala Leu Val Ser Ala  
 485 490 495

Ala Ile Ala Tyr Ala Phe His Glu Leu Gln Lys Asn Phe Val Phe Val  
500 505 510

Asp Tyr Val His Ala Asp Ile Asp  
515 520